

Claims

1. A method comprising the steps of:
- selecting a part from a computer-aided design (CAD) display on a client device; and
 - generating electronic purchase order for the selected part with a server through interaction of the client device and server over a network, based on the selecting of step (a).
- 5 2. A method as claimed in claim 1 further comprising the step of:
- generating the CAD display with a browser running a CAD display plug-in module on the client device.
- 10 3. A method as claimed in claim 1 wherein the selecting of the step (a) is performed with an input unit of the client device.
4. A method as claimed in claim 1 wherein the electronic purchase order includes at least part identification data and price data for the selected part.
- 15 5. A method as claimed in claim 1 wherein the electronic purchase order includes at least part identification data, quantity data, and price data.
6. A method as claimed in claim 1 further comprising the steps of:
- navigating through a part catalog of category(s) and sub category(s) of web page documents through interaction of the client device and server;
 - 20 retrieving CAD data resulting from the navigating of the step (c) from a database storage unit with the server;
 - generating a signal including the CAD data with the server;
 - transmitting the signal with the CAD data from the server to the client device via the network;
 - 25 receiving the signal with the CAD data at the client device; and
 - generating the CAD display at the client device, based on the CAD data.

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7. A method as claimed in claim 6 further comprising the steps of:
- j) generating a signal indicating the selected part with the client device in response to the selecting of the step (a);
 - k) transmitting the signal indicating the selected part with the client device to a server via a network;
- 10 5 l) receiving the signal indicating the selected part at the server; and
- 15 m) retrieving part data from a database storage unit using the signal indicating the selected part, the server generating the electronic purchase order in the step (b) based on the retrieved part data.
- 10 8. A method as claimed in claim 6 wherein the signal includes a reference linked to the selected part in the CAD display, and the server uses the reference to retrieve part data linked to the reference from the database storage unit in the step (j).
- 15 9. A method as claimed in claim 8 wherein the reference is a universal resource locator (URL).
- 15 10. A method as claimed in claim 8 further comprising the steps of:
- g) generating with the server a signal indicating part detail based on the part data;
 - h) transmitting the signal indicating the part detail with the server to the client device via the network;
- 20 i) receiving the signal indicating part detail at the client device; and
- 25 j) displaying the part detail with the client device.
11. A method as claimed in claim 10 further comprising the step of:
- k) determining whether to add the part reference to the electronic purchase order;
- 25 if the determination in step (k) is affirmative,
- l) generating with the client device a signal indicating that the part reference is to be added to the electronic purchase order;
 - m) transmitting the signal indicating that the part reference is to be added to the electronic purchase order from the client device to the server;
- 30 n) receiving the electronic purchase order at the server; and
- 35 o) storing the part reference with the server as a line item of the electronic purchase order.

12. A method as claimed in claim 11 further comprising the steps of:
if the determination in the step (k) is negative,
p) determining whether to add another part reference to the
electronic purchase order, and
5 if the determination in step (p) is affirmative,
q) repeating step (c) and following steps.
13. A method as claimed in claim 12 further comprising the steps of:
if the determination in the step (p) is negative,
r) determining whether the electronic purchase order is to be
10 committed as a finalized purchase order; and
if the determination in the step (r) is affirmative,
s) inputting payment data via client device;
t) inputting shipment data via client device;
u) generating a signal indicating payment data and shipment data
15 with the client device;
v) transmitting the signal indicating the payment data and the
shipment data with the client device to the server via the network; and
w) receiving the signal indicating the payment data and shipment
data with the server, the server using the payment data and shipment data to generate the
20 electronic purchase order in step (b).

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14. A method as claimed in claim 13 further comprising the steps of:
before the inputting of the step (s),
x) retrieving payment mode data, shipment address data, and/or
packaging instruction data pre-stored in the database storage unit in association with a
profile of the user of the client device;
y) populating the electronic purchase order with the retrieved
payment mode data, shipment data, and/or packaging instruction data;
z) generating a signal including the electronic purchase order
populated with the retrieved payment mode data, shipment data, and/or packaging
instruction data with the server;
a') transmitting the signal populated with the retrieved payment
mode data, shipment data, and/or packaging instruction data with the server to the client
device via the network; and
b') receiving the signal populated with the retrieved payment mode
data, shipment data, and/or packaging instruction data at the client device; and
c') generating a display of the electronic purchase order populated
with the retrieved payment mode data, shipment data, and/or packaging instruction data
at the client device.
15. A method as claimed in claim 13 further comprising the steps of:
x) inputting quantity data at the client device;
y) generating a signal including the quantity data at the client device;
z) transmitting the signal including the quantity data from the client
device to the server via the network;
a') receiving the signal including the quantity data at the server;
b') calculating price data based on the part data and quantity data at
the server; and
c') storing the price data as purchase order data for the electronic
purchase order in the database storage unit with the server.

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16. A method as claimed in claim 1 further comprising the steps of:
- c) generating at the server a signal including a prompt to input at least one of payment mode data, address data, and packaging data;
 - d) transmitting the signal including the prompt from the server to the client device via the network;
 - 5 e) receiving the signal including the prompt at the client device; and
 - f) displaying the prompt at the client device.
 - g) inputting at least one of payment mode data, address data, and packaging data at the client device;
 - 10 h) generating a signal including at least one of the payment mode data, the address data, and the packaging data, at the client device;
 - i) transmitting the signal from the client device to the server via the network; and
 - j) storing at least one of the payment mode data, address data, and
- 15 16. packaging data as purchase order data for the electronic purchase order in the database storage unit.
17. A method as claimed in claim 1 further comprising the step of:
- c) navigating through a hierarchical part catalog menu; and
 - d) generating the CAD display as a result of the navigating of the
- 20 18. step (c).
18. A method as claimed in claim 17 wherein the navigating includes substeps of:
- c1) generating a CAD display of a sub category including the part;
 - c2) selecting the part from the sub category in the CAD display; and
 - 25 c3) generating a CAD display of the part used for the selecting of the step (a).
19. A method as claimed in claim 17 wherein the hierarchical catalog menu includes a tree of web pages having a first web page with a category, the first web page hyperlinked to a second web page with a sub category, the second web page hyperlinked to a third web page having a sub category. the third web page hyperlinked to a fourth web page having the part data.
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20. A method as claimed in claim 1 wherein the selected part is an automobile part.

21. A method comprising the steps of:

- a) displaying a computer-aided design (CAD) drawing with a browser of a client device;
- 5 b) selecting a part in the CAD drawing with an input device of the client device;
- c) generating a signal indicating the selected part with the client device in response to the selecting of the step (b);
- 10 d) transmitting the signal indicating the selected part from the client device to the server via the network;
- e) receiving the signal indicating the selected part at the server via the network; and
- f) generating an electronic purchase order for purchase of the part, 15 based on the selected part indicated by the received signal.

22. A method as claimed in claim 21 wherein the step (a) is performed with a CAD display module plug-in to the browser.

23. A method as claimed in claim 21 further comprising the steps of:

- 20 after the step (a) but before the step (b),
 - g) highlighting at least one part in the CAD drawing having a reference, and wherein the step (b) of selecting includes the substep of clicking upon the highlighted reference with a mouse of the client device to select the part.

24. A method as claimed in claim 21 further comprising the steps of:

- 25 g) transmitting the electronic purchase order from the server to the client device;
- h) receiving the electronic purchase order at the client device; and
- i) displaying the electronic purchase order at the client device.

25. A method as claimed in claim 24 further comprising the steps of:
- j) inputting purchase data into the electronic purchase order at the client device;
 - k) generating a message including the electronic purchase order with purchase data at the client device;
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- l) transmitting the electronic purchase order with purchase data from the client device to the server;
 - m) receiving the electronic purchase order with purchase data at the server; and
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- n) storing the electronic purchase order with purchase data at the server.
26. A method comprising the steps of:
- a) creating a hierarchy of part category(s) and sub category(s) in respective part catalog(s);
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- b) storing the hierarchy of part category(s) and sub category(s) in a database storage unit;
 - c) associating part reference(s) with part category(s), sub category(s), and catalog(s);
 - d) associating reference(s) with respective part computer-aided
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- design (CAD) data;
 - e) linking CAD data to associated part catalog(s), category(s), sub category(s) reference(s), and associated part reference(s); and
 - f) storing reference(s) to respective CAD data in the database storage unit.

27. A method comprising the steps of:
- a) retrieving with a server a computer-aided design (CAD) drawing having at least one part with a respective reference from a database storage unit;
 - b) transmitting the CAD drawing with the part from the server to a client device;
 - c) receiving a signal including a reference to a selected part from the client device;
 - d) retrieving part data corresponding to the selected part from the database storage unit, based on the reference; and
 - e) generating an electronic purchase order based on the part data.
- 10 28. A method as claimed in claim 27 further comprising the steps of:
- f) receiving the CAD drawing at the client device;
 - g) generating a display of the CAD drawing at the client device;
 - h) selecting a part from the CAD drawing with the client device; and
 - i) generating the signal including the reference to the selected part.
- 15 29. A method comprising the steps of:
- a) associating at least one reference with a respective part of a computer-aided design (CAD) drawing;
 - b) storing the CAD drawing in a database storage unit; and
 - c) storing part data in association with the reference in the database storage unit.
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30. A system operable by a user via a network, the system comprising:
 - a client device coupled to the network;
 - a server coupled to the network; and
 - a database storage unit coupled to the server,
- 5 the client device having a computer-aided design (CAD) display module plug-in to a browser running on the client device, the client device generating a CAD display having at least one part, the client device operable by the user to generate a signal indicating a user-selected part in the CAD display, the client device transmitting the signal indicating the user-selected part to the network; and
- 10 the server coupled to receive the signal indicating the user-selected part from the client device via the network, the server retrieving part data from the database storage unit based on the signal indicating the user-selected part, the server generating an electronic purchase order for the part based on the part data retrieved from the database storage unit.
- 15 31. A system as claimed in claim 30 wherein the signal indicating the user-selected part includes a reference associated with the part in the CAD display, and wherein the server uses the reference to retrieve part data stored in the database storage unit in association with the reference in the database storage unit.
- 20 32. A system as claimed in claim 31 wherein the reference is a universal resource locator (URL).
33. A system as claimed in claim 30 wherein the electronic purchase order includes at least part identification data and price data included in the part data.
- 25 34. A system as claimed in claim 30 wherein the server transmits the electronic purchase order to the client device via the network, and the client device displays the electronic purchase order to the user.
35. A system as claimed in claim 30 wherein the user inputs quantity data at the client device, the client device generates a signal indicating the quantity data, and the client device transmits the signal from the client device to the server via the network, the server receiving and storing the quantity data as purchase order data in the database storage unit.

36. A system as claimed in claim 30 wherein the server calculates price data based on the part data and quantity data stored as purchase data in the database storage unit.
37. A system as claimed in claim 30 wherein the server generates a signal
5 including a prompt to input at least one of payment mode data, address data, and packaging data, and transmits the signal including the prompt from the server to the client device via the network, the client device receiving the signal including the prompt at the client device, and displaying the prompt at the client device.
38. A system as claimed in claim 30 wherein the user inputs at least one of
10 payment mode data, address data, and packaging data at the client device, the client device generates a signal including at least one of the payment mode data, the address data, and the packaging data, the client device transmitting the signal including the from the a at the client device, the client device transmitting the signal to the server via the network, the server storing the at least one of the payment mode data, address data, and
15 packaging data as purchase order data in the database storage unit.
39. A system as claimed in claim 30 wherein the server generates a signal including a prompt to copy purchase order data, the server transmits the signal with copy prompt from server to client device, the client device receives the signal with copy prompt from the server, and the client device generates a display of the copy prompt at
20 the client device.
40. A system as claimed in claim 30 wherein the server generates the copy prompt signal to indicate different modes for copying the purchase order data, and the client device receives and generates the display to include the prompt for the different modes for copying the purchase order data, the user selecting one of the modes for
25 copying the purchase order using the client device, the client device generating a signal indicative of the mode for copying the purchase order and transmitting the signal indicating the mode of copying the purchase order from the client device to the server, the server receiving the signal indicating the mode of copying the purchase order at the server, the server retrieving the purchase order data from the database storage unit, and
30 the server transmitting the purchase order data to a device coupled to the network selected based on the selected mode of copying the purchase order.

41. A system as claimed in claim 30 wherein the user operates the client device to navigate through a hierarchical part catalog menu defined by hyperlinking of web page documents transferred by the server, the client device generating the CAD display of the part as a result of the navigation through linked web page documents.
- 5 42. A system as claimed in claim 41 wherein the client device interacts with the server under control of the user to generate a CAD display of a sub category including the part, the user selects the part from the sub category in the CAD display, and the client device generates the CAD display of the part for selection by the user.
- 10 43. A system as claimed in claim 42 wherein web page documents served by the server and stored in the database storage unit define a hierarchical part catalog menu including a tree a category web page hyperlinked to one or more sub category web pages with references to part data stored in association with the references.
44. A system as claimed in claim 30 wherein the selected part is an automobile part.
- 15 45. A system as claimed in claim 30 wherein the selected part is a truck part.
46. A system as claimed in claim 30 wherein the selected part is an aircraft part.
- 20 47. A system as claimed in claim 30 wherein the selected part is a boat part.
48. A system as claimed in claim 30 wherein the selected part is a machine part.
49. A method as claimed in claim 30 wherein the electronic purchase order includes part identification data, quantity data, and price data.
- 25 50. A method as claimed in claim 30 wherein the electronic purchase order includes at least one of payment mode data, shipment address data, and packing instruction data.
51. A database storage unit storing at least one computer-aided design (CAD) data file for generating a display of a part having a reference, and part data including part identification data and part price data stored in association with the reference.
- 30 52. A database storage unit as claimed in claim 51 wherein the reference is a universal resource locator.

53. A computer-readable medium including a computer program for selecting a part from a computer-aided design (CAD) display on a client device, and generating an electronic purchase order for the part with the client device and a server over a network.

5 54. A transmission medium for carrying a signal including a computer program for selecting a part from a computer-aided design (CAD) display on a client device, and for generating an electronic purchase order for the part with the client device and a server over a network.

10 55. A data structure comprising a computer-aided design (CAD) drawing depicting a part with at least one reference, and part data stored in association with the reference.

56. A data structure as claimed in claim 55 wherein the reference includes a universal resource locator (URL).

15 57. A data structure as claimed in claim 55 wherein the part data includes part identification data and part price data.